



The Raleigh Amateur Radio Society's **EXCITER**

GET INVOLVED

- RARS General Membership meeting: Second Tuesday of the month.
- The RARS net meets every night except Saturday @ 8 p.m. on 146.640.
- The RARS Technical & Trader's net: Saturdays @ 8:00 PM on 146.64.
- RARS meets for a monthly dinner on the First Tuesday of each month.



PUBLIC SERVICE EVENTS

Interested in helping? Visit
<https://www.rars.org/public-service.php>

frequently for our 2018
ham public service
schedule.

RARS General Meeting

Topic: RARS pot luck Holiday party.

Sign up at the [RARS website](#).

RARS Officers induction

Date: December 11, 2018

Time: Meeting at 7:30PM

Informal gathering and refreshments from 7 - 7:30 p.m.

Where: Ridge Road Baptist Church. 2011 Ridge Rd., Raleigh

[New HAM meeting](#), 6:00 p.m. before member meeting

Tadd Torborg, KA2DEW, New Ham Meeting Coordinator

[Click here for more information.](#)

Presidents Comments

By Carl Davis, W8WZ

The season between Thanksgiving and New Year's Day is always a full and fast one. RARS will have our annual holiday potluck at the RARS meeting on 11 December which is always a lot of fun. Please plan to attend and bring a dish to share with fellow RARS members and guests. You can go on the RARS webpage and sign up to indicate what food item(s) you are bringing.

If you do your holiday shopping on Amazon.com please remember

[Continued on page 4](#)

RARS Officers

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The Raleigh Amateur Radio Society

The Raleigh Amateur Radio Society, Inc. (RARS) was founded in 1969 and continues to serve and support the amateur radio community in the greater Triangle area. In 1999, the society incorporated a new RARS and obtained 501(c)(3) non-profit tax status.

The objectives of the club are to promote worldwide friendship through amateur radio; to be of public service by providing radio communications in times of disaster, emergency, or civic needs; to educate members in radio technique, and to provide training classes to assist in obtaining amateur radio licenses.

Anyone interested in amateur radio is eligible to apply for membership. Dues for regular licensed amateurs are \$18 per year (from July 1 through June 30). Additional immediate family members pay \$5 each per year. Dues for licensed amateurs older than 59 or younger than 16 are \$12 per year. Dues for non-licensed associate members are \$9 per year. Applications for membership may be obtained from the treasurer or on the RARS website (www.rars.org).

Exciter

The Exciter is the official newsletter of the Raleigh Amateur Radio Society. It appears each month as a PDF on the RARS website at www.rars.org. Members receive email notification when the latest version is available. Please provide your email address to the Treasurer.

The Exciter welcomes articles, advertisements, and other contributions. To submit a piece to the newsletter, please contact the Editor. The Editor reserves the right to edit any and all pieces. The submission deadline for each month's Exciter is the third Friday of the preceding month. All submissions must be final. Drafts are not accepted.

The views expressed in the Exciter are those of the individual authors and do not necessarily reflect the views of the Editor or RARS.

Tom Lewis, N4TL, editor (editor@rars.org)

For Your Information

RARS General Meeting

Date: Second Tuesday of each month

Location: Ridge Road Baptist Church 2011
Ridge Road Raleigh, NC, 27607

Time: People begin arriving at 7 p.m. The meeting officially begins at 7:30 p.m.

RARS Monthly Dinner

All members and guests are welcome to the monthly (first Tuesday) RARS Supper, 6:30PM, at the Golden Corral Restaurant, 6129 Glenwood Ave., Raleigh. Informal and Dutch, just bring your appetite and best rag to chew. 73, Chuck, K4HF

RARS Repeaters in Raleigh

146.640 and 444.525

Join us for the nightly RARS net at 8 p.m. on the 146.640 repeater. All hams holding a Technician class license or higher are invited to check in. We welcome both RARS and non-RARS members to the net.

There is a net Listing on the RARS website click here. <https://www.rars.org/nets.php>

VE Testing

The RARS VEs will accept walk-in testing in February, May, August and November at 5:30PM, prior to RARS membership meetings at Ridge Road Baptist Church; the RARSfest in April; the Cary Swapfest in July; the JARSFest in November; and following RARS license classes. Please bring a photo ID, your original and a copy of your current license, your \$14 exam fee, and any valid CSCEs that prove passing elements beyond that of your current license. Visit <https://www.rars.org> for more information.

November 2018

RARS Net Monthly Summary

Checkins: 486

Traffic Brought/Passed: 8/8

Minutes: 1036

Sessions: 30

Virginia Enzor NC4VA

RARS Net Manager

Field Day Results in QST

December is a month full of great things including the announcement of the ARRL Field Day results!

On page 79 of December's QST we read that RARS was number 6 in the 7A category with 6,642 points. There were 19 entrants in the category.

We had 94 participants at our Field Day this year. As I looked through the results published in QST it appeared to me that RARS is among the 5 Largest Field Day operations in the entire country when judged by number of participants.

What can't be quantified in a report is the amount of fun that we had! Congratulations to Field Day Chair Bob W4TTX, all of the band captains, operators, volunteers and participants that made our Field Day an outstanding success in every way.

Well Done!

73 Carl Davis, W8WZ

President's Message continued

to use Amazon Smiles to support the Raleigh Amateur Radio Society. Shopping that way does not cost you any more money and results in some funds coming to RARS as a result of your purchases.

We have also completed our Fall Season New Ham class and have nine new ham radio operators as a result. One student earned his General class ticket and the others all earned their Technician licenses. When you hear them on the repeater or see them at club events please be sure to welcome them into our hobby and community. Thanks again to W4CP for teaching the classes, N4TL & W4TSW for their help with our demonstration day and to WA4GIR, KO4CK and the RARS VE Team for administering the exam session. Thanks also to everyone who talked to the students over the air as part of the in class demonstrations and to our board members who helped solidify the location logistics for our class this term. Together we made this year's class a great success and have nine new hams because of it!

RARS has also had two outstanding holiday nets on our 146.64 repeater this year thanks to our net manager NC4VA. We had a spooky Halloween net and a Thanksgiving net full of fun facts about that holiday. I learned that our state of North Carolina produces more turkeys than any other state in the union! Check into RARS 2 meter nets, you never know what you will learn. Remember the annual Tacky Tinsel Tour Net will be upon us soon in the month of December so plan to be on the repeater for that fun event this year and cast your vote for the best decorated house in Raleigh as reported by our on the air correspondents.

Happy Holidays es 73, Carl W8WZ

Future RARS Meeting Topics

Titles, topics, and speakers subject to change.

1/8/2019	The world of high power Medium wave and Shortwave broadcasting.	Lauren Libby, W0LD
2/12/2019	Using a Drone to Capture Video Images for UNC TV	Bob Gunter, PBS VideoGrapher
3/12/2019	Awards, RARS Birthday Party (2/12/69) & RARSfest Update RARSfest date April 20th	RARSfest Chair Tara Goodwin W4TSW
4/9/2019	Restoration of a Collins KWM-1 transceiver	John Green, KX4P
5/14/2019	Amateur Radio Direction Finding with a demonstration on 2 and 80 meters	Ruth Bromer, WB4QZG, & Joseph Huberman, K5JGH

November Membership Meeting, Door Prize winners



Left to Right: Paul Armstrong, KJ4DNC; Richard Adams, KJ4FJG; Kevin Swiger, WN4KLS; Doug Wall, N3LTV; Virginia Enzor, NC4VA



Left to Right: Dennis Keith, NC4DK; Roger Gibson, K4KCLK; Joe Fowler, K0CYA; Mark Kilmer, KM4JRH; Ken Latchum AD4GX

RARS November Membership Meeting

This month we had show and tell. The next few pages show the items from the meeting. Many of the presenters sent the Exciter more information which is included .



Tom Lewis, N4TL, Restored Heathkit IP-17 High voltage power supply

New front panel decals were made at Radio Daze. www.radiodaze.com They have many decal sets for old radios. They did not have them for this power supply. After contacting them, I shipped the front panel to them. After about six weeks they sent me the panel and new decals. I repainted the panel and put on the decals. I put clear coat on the decals to protect them. I bought the clear coat at Nick's Trains here in Raleigh. Nick's Trains is located at 5201 Oak Park Rd, Raleigh, NC 27612. The clear coat is sold by Microscale, industries. They have Gloss, Satin and flat. I bought all three and used the one that matched the paint the best. <http://www.nicks-trains.com>

RARS November Membership Meeting continued



Virginia Enzor, NC4VA, Tactical radio carrier.

TRC-1, Virginia Enzor NC4VA

I was looking for a way to create a small, easy-to-carry VHF/UHF go-kit. After the searching the internet, I decided upon the Tactical Radio Carrier, TRC-1, found at <https://www.tac-comm.com/>.

The TRC-1 is an aluminum carrier designed to hold, protect and transport a mobile radio. It measures 7.5" x 10.5". The sides can adjust from a height of 2.6" to 4.8". This flexibility accommodated my Yaesu FT-8800 dual band radio and Radio Shack switching power supply.

I attached both pieces of equipment to the carrier with a generous amount of industrial strength Velcro. For added security, I used 2 web straps through slots in the carrier.

Both the top and bottom of the carrier have slots for ventilation.

A handy red strap handle is screwed to one side of the carrier.

I found a microphone holder and attached it to the outside of the carrier.

Power cords and the microphone and cord fit neatly in the carrier and are fastened inside with Velcro ties for transport.

A sturdy wire bale tilts the carrier so that the radio display is easy to read.

The carrier has four rubber feet.

One nice feature is that carriers can be stacked on top of each other and secured if needed.

The only color choice is powder black but I am happy with that color.

RARS November Membership Meeting continued



Batteries

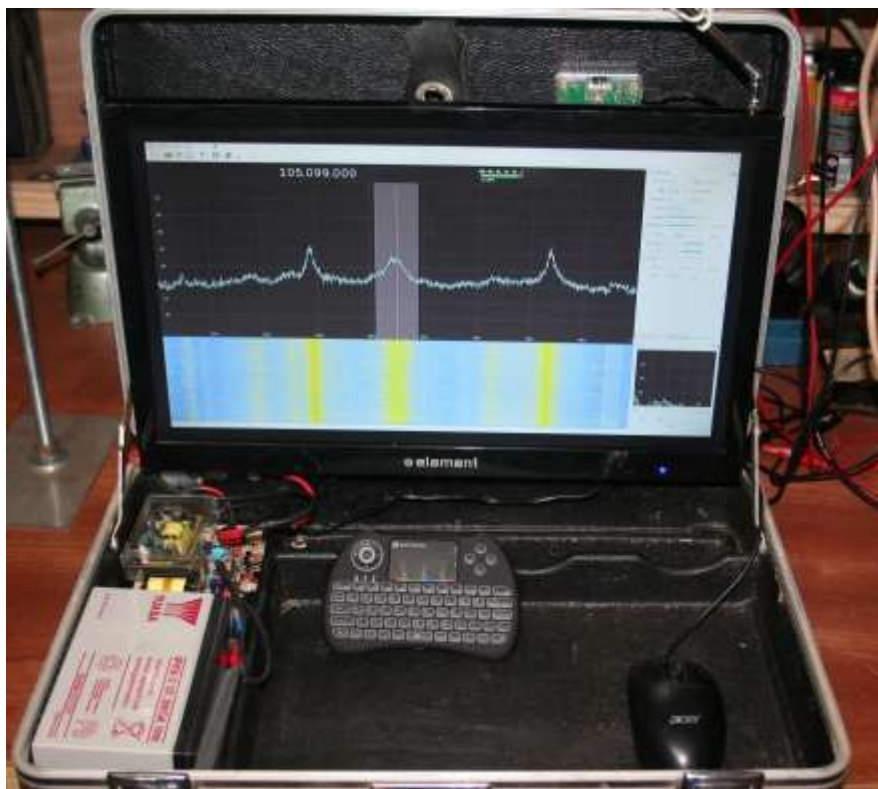


Battery case with display and many outputs



Alan Pitegoff, AB4OZ, Repurposed Power supplies and a 2.4 G scope.

RARS November Membership Meeting continued



Mark Kilmer, KM4JRH, Portable Bandscope in a case.

Inexpensive Portable Raspberry Pi SDR Bandscope

Hardware required:

- Cheap RTL-SDR USB dongle (RTL2832U)
- Display
- Antenna
- Battery pack (12v lead acid or a set of heavy Lithium Ion or similar. The Raspberry Pi needs 2.0 amps, check the power requirement on your display.)
- 12v to 5v converter for the Raspberry Pi or a 12vdc to 120vac inverter. (depending on the display)
- Mouse and Keyboard/Touch pad or a touch screen. Handheld mini keyboard is nice.
- Switches for the power supply(s)

RARS November Membership Meeting continued

Software:

- GQRX
- GNURadio Libraries

Creativity:

- For switching power, case design, hardware mounting, etc.

The less expensive dongles can be had on E-bay for less than 10 dollars. The bandwidth is nominally 24MHz to a little over 1.7ish GHz. A dual input dongle will run from about 100KHz to 1.7GHz, but can cost a little more. Many of the dongles come with an antenna, but upgrading the antenna will give better performance.

Although there are a number of battery operated displays for the Pi, the cost kind of defeats the idea of a cheap setup. 12 volt monitors and TV's are often available at thrift shops, yard sales and the like for next to nothing. An HDMI to VGA converter is available if the display doesn't have an HDMI input. A TV or monitor with speakers is ideal if you want to listen to the audio. Or, you can use headphones or ear buds from the Pi. If you choose a monitor that runs off of 120vac, you will need an AC inverter. Using an inverter will also allow you to use the Raspberry AC adapter without having to convert the 12 volts to 5 volts for the Pi.

A really clean build is to use a 12vdc system, with a converter to provide 5vdc for the Pi. A car cigarette lighter/USB converter can be used to supply the Pi power, The output should be at least 2.0 amps. Remove the board from the adapter and solder a micro USB cable to the output. Connect the input to the battery.

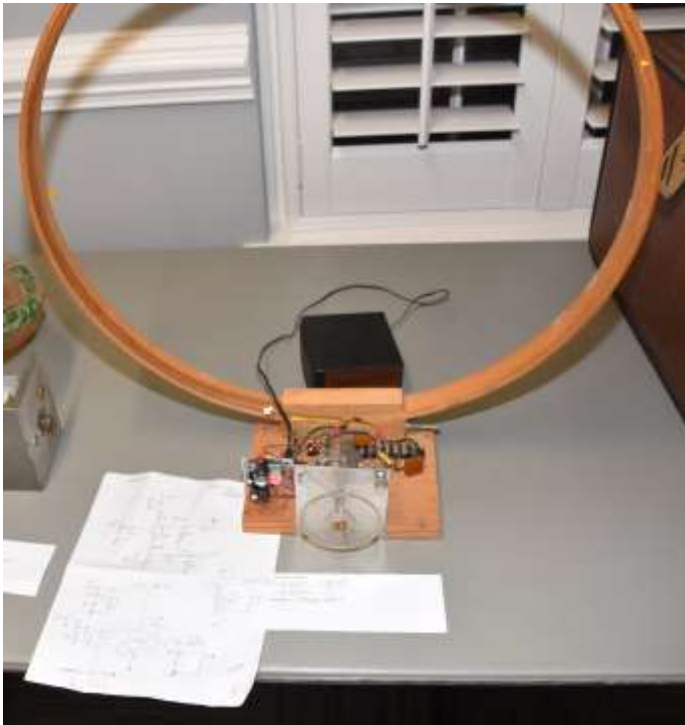
The monitor and dongle will be connected to the Pi via the USB and HDMI ports as well as a mouse and keyboard, unless using a touch screen with on-screen keyboard. The software is much easier to control with a scroll mouse.

Software is available at: <http://gqrx.dk/download/gqrx-sdr-for-the-raspberry-pi>

Have fun!

Mark Kilmer, KM4JRH,

RARS September Membership Meeting continued



Regen Radio Receiver



Tuned input for a linear amplifier



Six Meter Linear Amplifier with
two 4CX250G tubes.

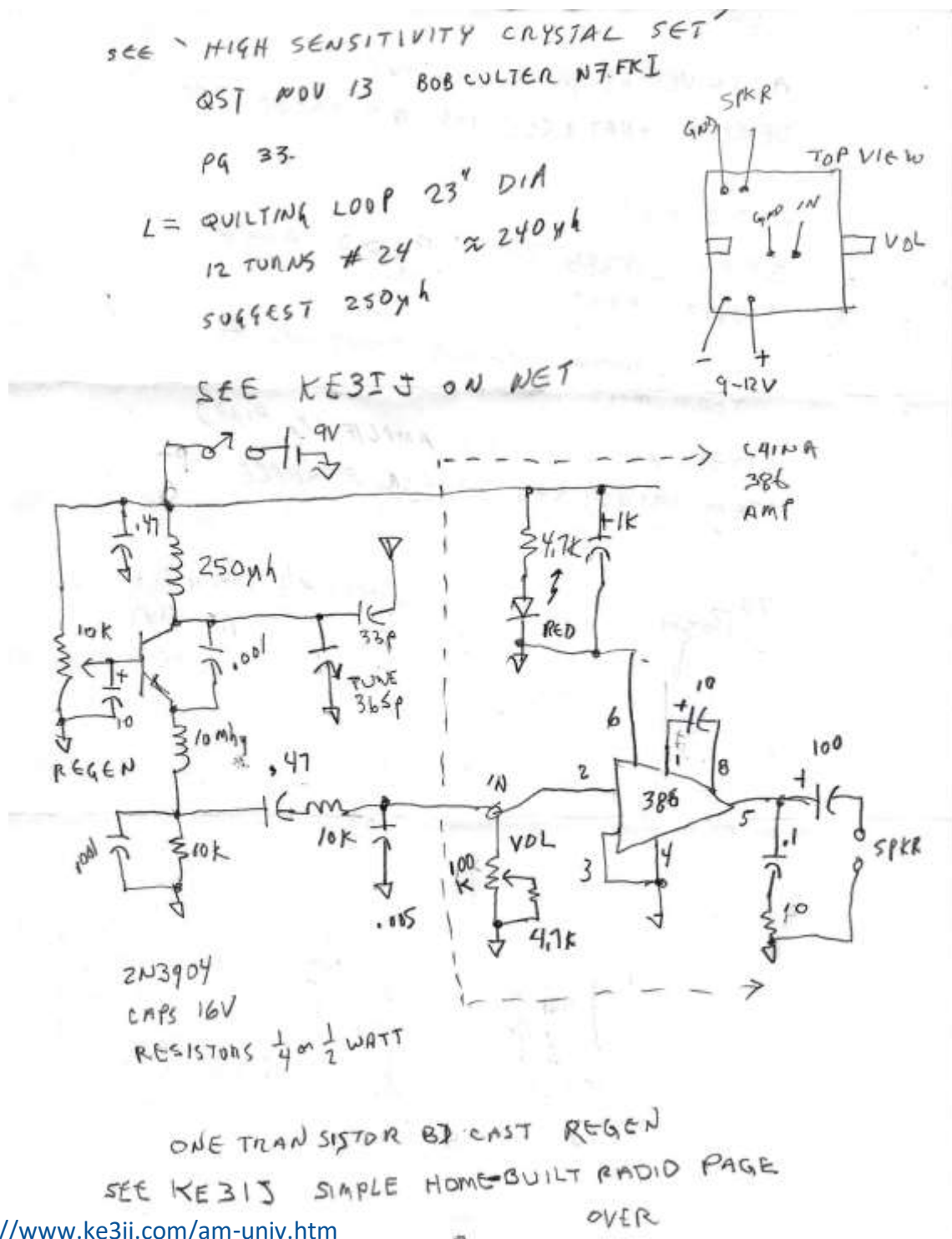


Softstart box. This box puts a resistance in series with the AC line for a short time before applying full voltage to the equipment. It reduces the inrush current when the equipment is turned on

All four of these items are by Roger Gibson, K4KLL.

RARS November Membership Meeting continued

<https://www.arrl.org/files/file/Technology/tis/info/pdf/culter.pdf>



More information about the Regen Radio Receiver from Roger Gibson, K4CLK.

RARS November Membership Meeting continued

A 'UNIVERSAL' REGENERATIVE
DETECTOR THAT RECEIVES AM, SW OR FM

AUDIO AMP

EBAY LM386 CHIP AUDIO AMP
0.75 FREE SHIPPING

BETTER WITH VOLUME CONTROL +
TERMINAL BOARD

LM386 AUDIO POWER AMPLIFIER BOARD
ITEM 191921396767 FOR EXAMPLE

73 Roger

Page 2, More information about the Regen Radio Receiver from Roger Gibson, K4KLK.



RARS September Membership Meeting continued



Adrian Howell, KM4CSH, Airplane Tracking Receiver.

[Aircraft ADS Receiver](#), All parts sourced from Amazon

[1090MHz ADS-B Antenna](#) - 66cm / 26in, by: FlightAware, \$39.95

[FlightAware Pro Stick Plus ADS-B USB Receiver](#) with Built-in Filter + MicroSD by: FlightAware, \$44.99

ELEMENT Element14 Raspberry Pi 3 B+ Motherboard, by Element, \$39.29

MEAN WELL RS-15-5 AC to DC Power Supply Single Output, 5V 3 Amp 15W, by MEAN WELL, \$7.55

Maxmoral N type Male To SMA Male Convertor Wi-Fi Adaptor Connector, by Maxmoral, \$6.99

SMA Male to Female Right Angle 90-Degree Adapter Gold Plated Contacts Pack of 2, by onelinkmore, \$5.39

The display is your PC or phone running a Browser on your local network.

Lots of information is located at this website, <https://flightaware.com/adsb/>

<https://www.rars.org>

RARS September Membership Meeting continued



Tadd Torborg, KA2DEW, Triangle Amateur Radio Packet Node, TARPEN.

Tadd, KA2DEW, brought a node box which is representative of a single-ported TARPEN switch. This is a basic component for a station in a Terrestrial Amateur Radio Packet Network. The box contains a surplus 440 25watt mobile transceiver (acquired from eBay for about \$40), a Raspberry PI, a TNC-PI (\$45 from Coastal Chipworks) a Gel-Cell battery and power switchover circuitry for the Raspberry PI. The switchover is so if the 12v feed from the shack were to disappear, the Raspberry PI would run off of the GelCen. If station-12v power is not restored within 100 seconds, the circuit does a shut-down request to the Raspberry PI Linux to nicely take it off line. This prevents the Raspberry PI from being trashed.

Continued on the next two pages.

RARS September Membership Meeting continued

The TARP network, described on <http://tarpn.net>, is a system and recipe for building a text email and text-message network using VHF and UHF ham band FM transceivers. The Raleigh metro area has a 18 site TARP network which is 58 miles long from end to end and would permit new stations in Zebulon through Mebane and Cary through Falls-Lake, to be added to the network trivially. Participants in the network can establish multiple links, adding to the network and extending it to new stations. Radio bands used in TARP networks include 51Mhz, 144Mhz, 222Mhz, 430Mhz, 927Mhz. Since our links are point to point, we can use small yagis to great effect.

The network is used for a real-time chat where any participant in the network can use a web-browser (while at home) to access the chat. The hams type one-line messages which show up at every other on-line station's display. Each line is prepended with the sender's callsign and name. Our network is currently 8 links wide and messages sent from one end take about 20 seconds to reach the other end. By the time we get our network built out from Tennessee to the Outer Banks, it might take a couple of minutes for a message to make it the length, assuming our technological prowess does not change.

Our Central North Carolina group is very social and we have several-times-a-year lunch get-togethers. We also join forces for many subprojects including putting together hardware and antennas for new members to the network. One thing we've been very successful at is acquiring radios, and power supplies for the new participants. We also have an excellent carpenter (Fin) making furniture grade housings for the more complicated nodes.

The participants in the TARP network email discussion group, and especially those connected together in the TARP network, contribute their own skills and know-how to enable network components and designs to be elegant, efficient, easy to assemble and easy to operate. The group includes not-only amateur carpenters but also software coders and RF design engineers. We have several on-going projects to further enhance the state of the art. The more participants we get, the more we learn and the more we can do. New participants are welcome. Check out the TARP network web page. Where-as TARP network was started by KA2DEW, and the first TARP network nodes were in Wake county, there are now TARP network larva in several places besides NC.

RARS September Membership Meeting continued

Our groups.io email exchange currently has 113 members including Japan, Great Britain, Canada including British Columbia, USA including Puerto Rico

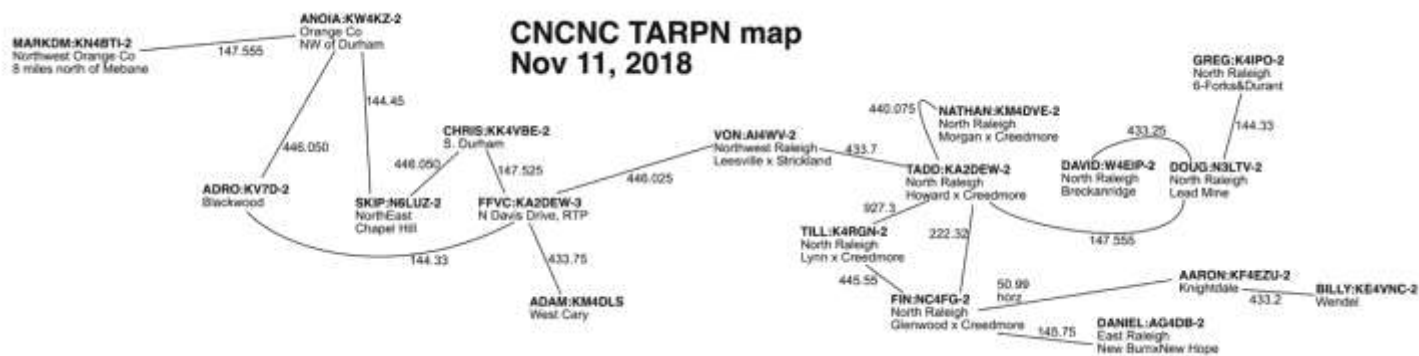
The node-box Tadd had at the meeting is actually packaged in a \$6 IKEA “Knagglig” wooden box.

RARS members participating in TARPAN include AG4DB, KA2DEW, NC4FG, KM4JRH, N3LTV, K4RGN, KE4VNC

73 Tadd, KA2DEW



Here are two multi-radio switches built into different NC4FG-Fin boxes.



RARS September Membership Meeting continued



Kevin Swiger, WN4KLS, Copper J-Pole, Pixie QRP rig 7.040 MHz and a Micro Bitx HF 3 to 30MHz CW-SSB transceiver

I bought the micro BitX from www.hfsignals.com . I used the DHL shipping and it arrived in less than 7 days from India.

The enclosure for the micro BitX I found at www.jameco.com . The case that I used is item number 208929 and is 7.3"L x 6.3"W x 2.75"H.

The board fit very nicely, and the case worked fine. However, if I were to do it again, I'd order a case with just another inch of width, which would let me organize the front panel better.

You can also buy a pre-cut case just for the micro BitX, but I did not buy it. Looks like everything is pre-drilled and cut. Here is the link: <https://amateurradiokits.in/pictures-of-ubitx-case/>

I picked up a microphone for \$1 at the JARS Fest and now have it working on SSB. Have made three contacts so far, Florida, New York, and Alabama.

There is a bug on the 20M band that causes the radio to go into the menu when you transmit. Still sorting that one out, but is the only problem so far.

I replaced the green 2X16 LCD that came with the micro BitX with a blue LCD with white letters. That can be ordered from several places. www.vakits.com has them for \$10.

The other item I had was the Pixie QRP transceiver. What I like about that kit is that it is available on frequencies accessible to a general license. You can get it on 7.040MHz, 7.050MHz, and other frequencies. Still haven't made a contact with that one yet, but some day. That kit came from www.vakits.com .

The other item I had is the 1/2" copper pipe J-pole antenna for 2M. That antenna works really well was able to tune it to nearly 1:1 SWR. I actually had to check it at both 144MHz and 148MHz at the ends of the 2M band before I could see the needle move on the SWR meter! Everything but the S0-239 connector came from Lowes. It seems that is a popular project for new hams like myself and I highly recommend it as an easy and rewarding project.

Best regards, Kevin Swiger, WN4KLS

<https://www.rars.org>

*New HAM meeting, 6:00 p.m. before the
member meeting*

Tadd Torborg, KA2DEW, New Ham meeting Coordinator

The New Hams meeting is held every month before the regular RARS meeting. We'll try to start by 6pm. We try to address topics in a manner that will be of help to hams in their first year of operation.



At our November new-ham meeting (see photo) with 16 in attendance several contributors brought in a couple of different modern HF transceivers and talked about their features. We even turned them on and checked out the different displays. We talked about the features of a modern vs used 1990s series HF radios, and switcher vs linear power supplies. We had examples of several different kinds of coax and connectors. We also talked about and displayed various watt meters, SWR meters, antenna tuners, and various wire antennas which could be used and adjusted with this equipment.

In December we're hoping to do a live demo of SSB and FM between a base station setup at the Church and a mobile station driving in the local area. FM is very useful and caught on in the 1960s for public service and ham radio, but SSB, also about as old, is much better for weak signal operation. We'll explore the differences and do some live operations to try to show how it really looks and sounds.

73 Tadd, KA2DEW

RARS Birthdays

Rick	K4RLE	12/01
Dave	KB8V	12/01
Charley	KN4IBT	12/01
Smitty	K4ACS	12/02
Gary	KI4KKY	12/03
Drew	KN4IBW	12/03
Glenn	KA4GLN	12/04
Charles	KN4LHD	12/05
Ronnie	W4RJF	12/06
Virginia	NC4VA	12/09
Bruce	KC4UQN	12/09
John	N5ENH	12/09
Kenn	NE4Y	12/09
Roger	KS4VX	12/12
Frank	KA2FWC	12/12
Ralph	KF4NIR	12/14
Conner	KE4ZNS	12/15
John	KM4MMA	12/16
Brandon	KM4PFT	12/17
Roger	W3EZR	12/18
Charles	KM4AMT	12/18
Gizmo	KW4EMG	12/18
Mike	KN4GUN	12/19
Ronald	KC4RB	12/21
Robert	K4WWR	12/25
Mike	WD4MB	12/27
Mike	KK4YAQ	12/27
Darrell	W4CX	12/29
Jason	KK4TLZ	12/29
Gerry	K4GCJ	12/31
Dick	KD4ISC	12/31
Bob	W4GIA	12/31

New RARS Members

Jeff Highsmith	WJ3FF
Gavin Highsmith	KN4QQV
Tony Laszlo	KN4QQL
Paul Armstrong	KJ4DNC
Patrick McDowell	KM4QDZ

Future Hamfests

A full list of Hamfests can be found at the [ARRL website](#).

01/05/2019 | [Winston-Salem FirstFest](#)

Location: Winston-Salem, NC

Type: ARRL Hamfest

Sponsor: Forsyth Amateur Radio Club

Website: <http://w4nc.com>

03/08/2019 | [North Carolina Section Convention \(Charlotte Hamfest\)](#)

Location: Concord, NC

Type: ARRL Convention

Sponsor: Mecklenburg Amateur Radio Society

Website: <http://charlottehamfest.org>

04/20/2019 | [North Carolina State Convention \(Raleigh Hamfest\)](#)

Location: Raleigh, NC

Type: ARRL Convention

Sponsor: RARS

Website: <http://rarsfest.org>

RARS VE Sessions by the Numbers

Here are some numbers from the 2018 VE sessions.

Nine sessions held. Of those, four were prior to the meetings, two were from classes, the largest was *RARSfest*, and the other two were also from 'fests. Cary and JARS.

From meetings, a total of 33 people tested. Of those, we had 19 make Tech, 4 General, and 9 Extra Class. Of the four meetings, only 1 person failed to upgrade. We averaged 8 VEs per meeting session. At the February meeting, there was one individual who went from unlicensed to extra. At the November meeting, we had one 10-year old who got his Tech and only missed 3 questions. Quite an achievement.

There were two tech classes. Twelve upgraded and no one failed to upgrade. We had 10 new Techs, 1 General, and 1 Extra. Note the Extra was not someone from the class. Often with classes, many test prior to the end at other sessions or perhaps at meetings. Twelve VEs participated in classes.

RARSfest is always huge and this year was no exception. We Tested 59, with 45 upgrading and 14 failing to upgrade. There were 18 Tech, 18 General, and 9 Extra Class. Thirteen VEs participated.

Cary had 21 test with 16 upgrading and 5 failing to upgrade. That resulted in 7 Techs, 8 Generals and 1 Extra. Eight VEs worked the session.

Our final session was JARSFest. We tested 13 with 8 upgrading and 5 failing to upgrade. The result was 5 Generals and 3 Extra Class. It is quite unusual to have a session with no one taking Technician. One person went from unlicensed to Extra Class. We had 8 VEs work the session.

We have an awesome team of VEs and it is a pleasure to work with them. During the year we had 20 VEs participate in various sessions. We are extremely grateful for each and every one who helps.

KO4CK & WA4GIR

Asheville Radio Museum Annual Fund Drive

We teach. We preserve. We demonstrate. We inspire. All with a small group of unpaid volunteers who do it for the love of radio. Admission is always free. With no source of funding, other than infrequent sale of duplicate equipment, we need help. North Carolina hams please stand with us! Use the Donate button on our home page (<https://www.avlradiomuseum.org>). It accepts Paypal or a credit card. Or, mail your check to The Asheville Radio Museum, 315 Elm Building, 340 Victoria Road, Asheville NC 28801. Your help will keep the spirit of ham radio alive in North Carolina. Every small donation helps. Thanks for your support!

Spotlight on RARS Net Friends

Virginia Enzor NC4VA, RARS Net Manager



This month's column features a ham who knows how to tell a story; he's the Paul Harvey of the two-meter band! He's on the net almost every night; you will enjoy hearing him.

The RARS net meets at 8:00 PM on the 146.64 repeater nightly! Please check in; we would love to hear your ragchew.

Spotlight on Bob Chapman NC1X

1. Name, Callsign & License class

Robert E Chapman, "Bob", NC1X, Extra

2. Year originally licensed

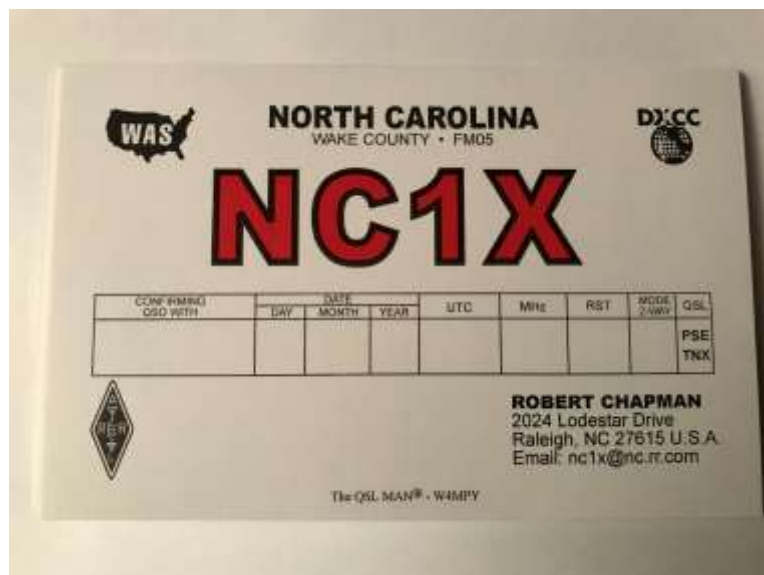
2007

3. How did you get into ham radio?

Electrically involved since childhood: Electric Trains, wired cousin's dollhouses for lights and doorbell, built xtal and 1 tube radios, won 7th grade science fair with a photocell alarm (real hi-tech in 1958), AM and SW listener (still have the AM Log from 1959), serious SWL with a Drake R8 and real antennas in the '90s, failed miserably to learn code so waited until 2007 to get licensed.

4. What aspects of the hobby currently interest you?

DX all bands (301 entities so far), 6 meter grid collector, not too many but have worked Argentina and Spain. getting excited about FT8.



Continued from the previous page

5. Positions that you hold or have held in RARS or other organizations

RARS secretary 2 yrs, RARSfest admissions 4 yrs

6. Any special awards? (DXCC, WAS, WAC, IOTA, etc)

DXCC, WAS



NC1X Radio Station – The beautiful roll top desk belonged to Bob's maternal Grandfather whom Bob described as a typical old-fashioned country doctor.

7. Any special project you are currently working on?

Looking to raise a 6m vertical for nets, and a 2m yagi for 2m DX

8. Interests outside of radio?

Church, Habitat for Humanity, model trains, being granddad.

9. Words of advice for new hams?

A good antenna is better than a kilowatt. Ground everything. Listen before transmitting.
Join the ARRL. Use LOTW, it's cheaper than paper and postage.

ARRL Outgoing QSL Bureau for RARS Members

ARRL affiliated clubs can send their members' cards together in one package.

I have agreed to do this and will collect cards four times a year starting in January 2019. The four times will be January, April, July and October.

To use this service you have to be a member of RARS and the ARRL.

RARS will pay the \$7.00 service charge. Members still have to pay the \$1.15 per ounce charge. The cards must only be from the member. You cannot slip someone else's cards in with yours. The cards must be sorted per the ARRL's instructions. Make sure the country that the card is going to is on the ARRL's list of supported countries. You must fill out the ARRL's submission form. On that form your ARRL member number is required information. In January give me the sorted cards, a check to cover the \$1.15 per ounce charge and the [submission form](#). Make the check out to the ARRL outgoing Bureau. Also make sure you read all the information on this webpage, <https://www.arrl.org/outgoing-qsl-service>.

If the card is going to a QSL manager in another country, write "VIA" and the QSL manager's call sign on the card. Look up each contact on QRZ.com to make sure they will QSL via the Buro. Many stations don't. Some only QSL electronically or direct.

This is from KH6AP's information on QRZ.com. Notice, he does not use the QSL Bureau.

QSL INFORMATION:

LoTW, QRZ, eQSL and HRDLOG.

NO QSL BUREAU EVER.

NO PAPER CARDS AT THIS TIME.

73 Tom N4TL

ARRL Kids Day

The ARRL Kids Day is January 5, 2019 (<http://www.arrl.org/kids-day>). What a great opportunity to get children and youth on the air! A way to get kids interested in Amateur Radio is to get them on the air. It's not really about the stuff they have to learn to get the license; it's about talking to someone on the radio – the further away, the better. UHF or HF, get them in front of the radio and hand them the mike. Having a little script helps (no personal information) to get things started. Follow up with a QSL card for the young person to remember the experience. Get a picture of the youth on the radio and send it in to the Exciter.

We are looking for other opportunities for our youth to get on the air, especially with other youth near and far. That could include: RARS meetings, RARSfest, Field Day, New Ham Meeting, repeater rag chews, JOTA, even the Technician course. Let me know what you think.

Murray, K4MHM

RARS holiday party

Going to the RARS holiday party? Go in style - wear your RARS shirt. Don't have one? You can order one on the RARS website.

Murray, K4MHM



Youngsters On The Air

The last month of 2018 is approaching and we are excited to announce that our famous December YOTA Month will happen this year as always. We would like to invite you to take part with a callsign with YOTA as the suffix, for example, DF0YOTA.

The idea for this is to show the amateur radio hobby to young people and to encourage youngsters to be active on the amateur bands. This is a great moment to show amateur radio to the world and to invite newcomers. Give a demonstration in a school, local club or scouting group, gather together with your friends, grab a pizza and make some QSOs or enjoy a great pile-up. Feel free to make a QSO with the youngsters, they are happy to get some attention and exchange information. Licensed and unlicensed youth will be making QSOs, be aware this could be their first radio contact ever and give them a chance to experience a possible new hobby.

This year we will have new diplomas and rules! Diplomas can be achieved by working our YOTA suffix special stations which are run by young operators throughout December! We changed a bit on the general rules; 2 points can be achieved per worked stations and 1 extra point for every valid (not dupe) QSO per band per mode! This is of course not a contest, but getting many youngsters on air from many countries. Be helpful on the bands, maybe these young operators are just making their first ever contacts!

The aim is that YOTA stations are in general operated by young people, with the age of maximum 26 years. The event will take place from 1 December 2018 00:00 UTC till 31 December 2018 23:59 UTC. Until now we have stations registered from all over Europe, Africa and even from the US and New Zealand. Are you interested? Would you like to take part or want to know more about the new diploma rules? Find more information on <https://events.ham-yota.com/>

You can also find us on social media platforms, like #hamyota on Facebook and @hamyota Twitter. You can also join our Facebook group by [facebook.com/groups/youngstersontheair](https://www.facebook.com/groups/youngstersontheair) where you can find up-to-date information during December.

Bernie McClenny, W3UR
Editor of: [The Daily DX](#) (1997-2018)
[The Weekly DX](#) (2001-2018)
How's DX? (1999-2018)



Amateur Radio in School!

Evan McNabb NC4EV

On Friday, November 30, 2018, approximately 50 second grade students from Holly Grove Elementary School in Holly Springs participated in a live amateur radio demonstration. Evan McNabb NC4EV, parent of a student in the class, discussed the basics of radio, usage, and etiquette. This demonstration supported objectives in the second grade science unit on sound.

Evan then held a question and answer session over the radio with Virginia Enzor NC4VA on the RARS 146.64 repeater. Several students asked questions of Virginia directly. It became apparent that everyone wanted to participate so all 50 students ended up saying hello to NC4VA over the air.

Note from Virginia Enzor NC4VA: Amateur radio is a great way to promote STEM! The STEM curriculum focuses on science, technology, engineering, and mathematics. If you have a child in school, consider offering a ham radio demonstration. A chat with the teacher before hand can help you know which STEM concepts that ham radio reinforces at that grade level. Way to go Evan!!



Evan McNabb NC4EV, wife and daughter at Holly Grove Elementary School, demonstrating ham radio

Note: from Virginia Enzor

SKYWARN RECOGNITION DAY 2018

Virginia Enzor NC4VA, Emergency Coordinator, Central Carolina
SKYWARN

The 20th annual SKYWARN Recognition Day was held Saturday, December 1, from 0000-2400 UTC. During this 24-hour period, spotters made contact with SKYWARN radio operators at NWS offices across the nation. This event was originally developed in 1999 by the National Weather Service and the American Radio Relay League to celebrate the contributions that SKYWARN radio operators/spotters make to the National Weather Service. It also allows NWS offices to test their back up forms of communication.



Central Carolina SKYWARN and the Raleigh National Weather Service, operating under the call sign WX4NC, joined in the fun on Friday night (November 30) from 7:00-11:00 PM and Saturday from 8:00 AM-5:00 PM, making contacts on the WB4TQD 146.88 repeater, the K4ITL 147.105 repeater, the K4ITL 147.135 repeater, the Carolina 440 UHF Link System, the W4BAD Link System, IRLP, Echolink, and HF.

For each QSO, radio operators exchanged names, call signs, locations, signal reports, and a 1 or 2-word weather report.

Here were our stats:

Number of NWS offices contacted - 31

Number of states contacted - 38

Other countries: Lithuania, Italy, France, Canada, and one maritime mobile station, XE1C, off the coast of Cuba

Total number of contacts (no dupes) - 198

Despite challenging band conditions on HF, we were proud of our showing!

Special visitors included NC Section Manager Karl Bowman W4CHX and his wife Gail and Chuck de Court W3WZN, State Government Liaison.

Thanks to all spotters for your support of the National Weather Service for this special event and for your participation throughout the year during hazardous weather.



The 2018 SKYWARN Recognition Day Team:

Front Row: Virginia Enzor NC4VA, Kristina Benson, Lauren Petro KF7RCU, Stacy Petro KF7NPT, Shannen Petro, Nick Petro WX3H

Second Row: Chris Benson KJ4LKE, Bob Woodson WX4MMM, Ken Stark W4KJS, Scott Lewis AB4SL, Randy Stark WN4RSS



Minutes

Raleigh Amateur Radio Society

Board Members Meeting

Date | time 10/16/18 @ 7:00 pm | *Meeting called to order by* Carl Davis W8WZ

In Attendance

8 Members

Carl Davis W8WZ

Alan Pitegoff AB4OZ

Greg Seamster KE4PAX

Chuck Littlewood K4HF

Richard Kroeger N1FUA

Murray Merner K4MHM

Virginia Enzor NC4VA

Tom Lewis N4TL

1 Visitor

Mark Kilmer KM4JRH

Approval of Minutes

Quorum present: September Board Meeting Minutes Approved

President Report-Carl W8WZ

Present; no report to give

Vice President Report/Exciter Report-Tom N4TL

Minutes continued from the previous page

Tom reports that the next member meeting will be the RARS Show & Tell, he requests that board members announced on the .64 repeater to remind the membership, and the Decembers meeting is the Christmas Party Potluck and Elections.

The Exciter is coming along well and Tom was able to capture great pictures of the auction for the November issue which the deadline for submittals will be November 3rd.

Treasurer's Report-Greg KE4PAX

Greg reports that we currently have 368 members and, we still have 83 members that have not renewed from last year. Greg also gave a brief report on the finances.

For more detailed information regarding Greg's Treasurers report please contact KE4PAX

Secretary's Report/RARSfest Chair-Tara W4TSW

Tara was not present but Carl (W8WZ) read her report that stated the corrected copy of September Board Minutes and October Member Minutes have been sent to the board. If no more changes are needed then Tom can post them in The Exciter.

Carl also read her RARSfest report that stated the first meeting is the following Tuesday and she is hard at work locking down the meeting agenda and working on open lead positions and current issues that will need immediate attention at said meeting. There still has been no update on the fairgrounds contract but Chuck will follow up with Claudine after the fair.

Directors Reports

Public Information Officer-Charles KM4AMT: Not present, Tara (W4TSW) sent in a report as interim PIO until official elections. She stated that the RARS Facebook page has a good stream of posts being published that have accrued many likes and shares. She is adding 'fillers' constantly from things going on in our club and welcomes membership to also post or send her topics.

The RARSfest Facebook page and Twitter, along with the NCQSO Facebook, will begin to start publishing posts as they move forward into the planning phases. As these events loom closer so will the page postings begin to get busier.

Tara also reported that there were private messages received through the RARS FB Messenger. One is that there has been an HT left at a ballet dance school and if you can describe it then the dance school will return it to the proper owner. We also have someone asking if someone in RARS has a FT60 Programmer File for the Raleigh area or a CSV import. It was then discussed and realized that Mark (KM4JRH) had the file and had already shared it with the person requesting.

Education Director-Carl W8WZ: Carl reported that though there were issues with the Wake Tech rental and, due to these unexpected issues, there was a last minute change in venue to the Health Park in N. Raleigh. He thanked the board members who were able to assist in locating a new classroom setting and was pleased to report that the first class had been successfully executed. 18 students were registered and 12 of them attended the first class. There is possibility of one or two more students catching up in the second class and a new RARS member is auditing the class. Next week's class is the Demo Day at St Christopher's and Tom (N4TL) will be attending with his HF rig and Carl asked that members monitor the .64 repeater that day.

Due to the changes at Wake Tech, and the help of board members, there is a plan in action to have the spring class at NC State by having the NC State radio club sponsor the classes and advertise to the student body. And plans in motion for the 2019 fall class to possibly be held at the Wake Co Public School Adult Education Program, that hosts non-credited classes to the community, and assists RARS classes in using the Wake Co Public School building for night classes, during the week, and to be registered in the class catalog. It will make the class a ten week, two hours a week, program but Carl will be requesting RARS members, who are interested, to teach different chapters in the book to keep our current instructors from having to give up 10 weeks of their time and will also get more RARS members interested in reaching out to new hobbyist.

There was discussion on 2019 rates and expenses that will be brought up closer to next year's classes for further discussion.

Net Manager-Virginia NC4VA: Virginia reports that the nets are well attended and she has heard only compliments on The Exciter profiles of those RARS members that check-in regularly to the nets. She also mentioned that Halloween, Oct 31st, falls on a Wednesday and she is planning a special Halloween edition of the net.

Food Service Chair-Richard N1FUA: Richard reports that the food service is going well and he has been receiving positive feedback on the snacks being served at the meetings.

ARRL Liaison-Chuck K4HF: Chuck reports that the new CEO of the ARRL comes with high credentials to work with a member driven company and he believes there will be positive changes coming to the organization.

Carl (W8WZ) reminds current ARRL members that if they have not returned their ballots for Director and Vice Director of the Roanoke Division to do so quickly.

Minutes continued from the previous page

Director-at-large-Alan Pitegoff AB4OZ: Alan reports that there have been complaints regarding the outdoor lights not activated after the RARS member meeting but the church has been notified and Alan believes he has the issue well in hand.

Youth Director-Murray K4MHM: Murray reports that there will be no JOTA this year due to the incapacitation of the member who usually heads this project. Murray suggest putting up an HF and VHF station for the few cub scouts that will show up or just letting it slide this year since it's not a big event and, at this time, we do not have a venue to set up at. It was decided that unless we are asked to participate by a troop then RARS will set out the 2018 JOTA event.

Immediate Past President-Dennis NC4DK: Not present, no report given

ARRL NC Section Manager-Karl W4CHX: Not present, no report given

W4DW/W4RNC TRUSTEE-Jeff, AC4ZO: Not present, no report given

Director-at-large-Marty W4MY: Not present, no report given

Public Service Director-John K3RHJ: Not present, no report given

Director-at-large-Joanne AA3N: Not Present, no report given

Field Day Chair-Bob W4TTX: Not Present, no report given

Webmaster-Hank K4HM: Not Present, no report given

FM Repeater Chair-Karl W4CHX: Not Present, No Report

NC QSO Party Chair-Marty W4MY: Not Present, No Report

Old Business

New Business

Additional Business/Comments/Announcements

Minutes continued from the previous page

Next Meeting

11/20/2018, 2011 Ridge Road at 7:00pm

Meeting was adjourned at 8:23pm

Meeting Minutes taken and Submitted by Tara Goodwin W4TSW

Minutes

Raleigh Amateur Radio Society

Members Meeting

To: Tom Lewis, N4TL

Vice President

From: Charles Swindell, WB4DCM

Acting Secretary

Re: Minutes of the meeting of November 13, 2018

Date: November 14, 2018

The Raleigh Amateur Radio Society monthly meeting was called to order by V-P Tom Lewis, N4TL at 7:30 PM on November 13, 2018.

Pledge was given to the flag of the United States. After that, the following announcements were made:

- The RARS dinner is the first Tuesday of each month;
- The RARS Board meets the third Tuesday of each month;
- Those that wish may meet for chow following this meeting;
- The graduating class for the most recent Tech Class was asked to stand;
- Thirteen guests were recognized;

Minutes continued from the previous page

- John Honeycutt KK4ZFB
 - Dan Justis
 - Theo Laughner KF4FAW
 - Steve Czaikowski W3SPC
 - Richard Adams KJ4FJG
 - Brantley West KN4QQI.
 - Gavin Highsmith
 - Jeff Highsmith WJ3FF
 - Joby Sebastian
 - Thomas Anthony
 - Anthon Bartholomew
 - Ambareesh Pandit KF5SJJ
 - Kevin Swiger WN4KLS
-
- The minutes of the previous meeting were approved;
 - VP Tom reports that the December meeting will be the Pot Luck Holiday Party, please sign up on the RARS website. The officers for 2019 will be inducted into their offices.
 - VP Tom reports that the program for the January meeting will be “The world of high power medium wave and shortwave broadcasting”. Given by Lauren Libby, W0LD;
 - During one of the Technician classes, contacts were made with a Boy Scouts troop. See the November issue of the Exciter for more information and pictures.
 - Virginia Enzor NC4VA reported that SKYWARN Recognition Day will be December 1, 2018 from 0000 UTC to 2400 UTC. The event recognizes the contributions that spotters make to the National Weather Service. Central Carolina SKYWARN will be participating with the Raleigh National Weather Service in this national event. Please make a contact with WX4NC on the 80, 40 and 20 meters, IRLP/Echolink or on the local repeaters normally used by Central Carolina SKYWARN. The Raleigh National Weather Service will offer a Special Event certificate and more details will be found at <http://www.weather.gov/rah> on December 1.
 - Chuck, K4HF reported on the selection that the Nominating Committee had made for officers. The slate was approved.

Minutes continued from the previous page

RARS Officers for a two year term:

Vice President: Tom Lewis, N4TL
Treasurer: Greg Seamster, KE4PAX

Board Members for a one year term:

Public Service Director: John Stone, K3RHJ
Public Information Officer: Tara Goodwin, W4TSW
RARS Exciter Editor: Tom Lewis, N4TL
RARSfest 2019 Chairperson: Tara Goodwin, W4TSW
RARS Net Manager: Virginia Enzor, NC4VA
At-Large Director: Alan Pitegoff, AB4OZ
At-Large Director: Joanne Mars, AA3N
At-Large Director: Robert Walker, K4WWR
FM Repeater Chair: Chuck DeCourt, W3WZN
W4DW, W4RNC, N4RAL Trustee: Jeff Wittich, AC4ZO
ARRL Liaison: Chuck Littlewood, K4HF
RARS Education Director: Carl Davis, W8WZ
Youth Director: Murray Merner, K4MHM
RARS Web Master: Hank Montgomery, K4HM

RARS Chairmen:

RARS Food Service Chair: Richard Kroeger, N1FUA
RARS NC QSO Party Chair: Marty Young, W4MY
RARS 2019 Field Day Chair: Bob Starkenburg, W4TTX
RARS Volunteer Exam Coordinators -
Liz and Joe White, KO4CK & WA4GIR resp.

- Ten door prizes given out.

[Note: Joanne Mars provided this list of winners.]

Virginia Enzor NC4VA

Doug Wall N3LTV

Kevin Swiger WN4KLS

Richard Adams KJ4FJG

Paul Armstrong KJ4DNC

Dennis Keith NC4DK

Ken Latchum AD4GX

Roger Gibson K4KLK

Mark Kilmer KM4JRH

Joe Fowler K0CYA

- The program consisted of various projects that members had made and a brief description of the project. [Note: Tom N4TL updated this list. Pictures will be in the December Exciter.]
 - Tom Lewis, N4TL, Restored Heathkit IP-17 High voltage power supply
 - Alan Pitegoff, AB4OZ, Repurposed Power supplies and a 2.4 G scope.
 - Virginia Enzor, NC4VA, Tactical radio carrier.
 - Mark Kilmer, KM4JRH, Portable bandscope in a case.
 - Roger Gibson, K4KLK, Softstart box, Six Meter Linear Amplifier with two 4CX250G tubes. Tuned input for a linear amplifier and a Regen Radio Receiver.
 - Kevin Swiger, WN4KLS, Copper J-Pole, Pixie QRP rig 7.040 MHz and a Micro Bitx HF 3 to 30MHz CW-SSB transceiver
 - Adrian Howell, KM4CSH, Airplane Tracking Receiver.
 - Tadd Torborg, KA2DEW, TARPEN Node.

The meeting was adjourned at 8:30 PM.

RARS Classifieds

Copied from <https://www.rars.org/classifieds.php>

The items below were listed within the last 30 days on the RARS website.

Vibroplex Brass Racer

Posted November 24th, 2018 by: KA2FWC

Contact: ka2fwc@bellsouth.net

I have a Triangle Brass Racer Iambic key. In very good condition. I have one, and don't need two. Price \$100.00 Frank

For Sale Icom AT-180 control cable

Posted November 24th, 2018 by: KA2FWC

Contact: ka2fwc@bellsouth.net

I have a control cable for an Icom AT-180 antenna tuner, It is new in the package. P/N QPC-598.

I think it is 20ft long. I never used it, I bought the AH-4 instead. Price is \$25.00

Frank

Daiwa Cross Needle SWR Meter / Yaesu MD-100ASX Dynamic Base Mic

Posted November 21st, 2018 by: KD4LOE

Contact: remorin@aol.com

My in-laws (K4WWC & KD4OQU) are selling their home and I am helping them break down their ham-shack. I may have more equipment for sale in the near future.

For Sale:

Daiwa CN101L Cross Needle SWR Power Meter

1.8-150 Mhz, Condition: In original box, barely used.

List price \$115. Asking \$70

RARS Classifieds continued

Yaesu MD-100A8X Dynamic Microphone

with active filtering for tone control

Compatible with FT-450, FT-450D, FT-840, FT-847, FT-857/D,
FT-890, FT-897/D, FT-950, FT-990, FT-1000, FT-1000MPV and FT-2000

Condition: In original box, never used.

List Price: \$149.95 Asking \$125

TYT MD-9600 Dual Band DMR/Analog Mobile Radio - Asking \$100

Posted November 20th, 2018 by: KA9QJT

Contact: ka9qjt@hotmail.com

This is a 1st gen radio (hardware), with the latest TYT firmware (6.003) installed. Documented audio-related hardware mods have been made.

Radio is clean. It's never been used mobile.

Includes all the factory accessories (mic, power cable, bracket, hardware), user guide and original box. The programming cable is also included.

The radio is programmed with a usable Triangle-area codeplug and allows up to 100K DMR contacts to be programmed.

Program your DMR ID and it will be ready to go.

KA9QJT - Brian (North Raleigh)

Misc Working Ham Radio Items

Posted October 31st, 2018 by: K4HF

Contact: k4hf@arrl.net

ICOM IC SP-21 Speaker - \$70

MFJ Model 464 CW Keyer/Reader - \$125

MFJ model 989C 1.5KW Versa Tuner V HF Antenna Tuner - \$175

Contact me by E mail, preferred, or (919) 872-6555, Thanks, Chuck

RARS Classifieds continued

Misc Working Ham Gear

Posted December 5th, 2018 by: K4HF

Contact: k4hf@arrl.net

Heathkit AT-1 Transmitter with a VF-1 VFO. \$125

Heathkit DX-60 Transmitter with an HB-10 VFO \$140

Shure Model 522 Dynamic Dual Impedance Base Mike \$40

MFJ Versa Tuner V, Model 989C 1.5KW HF Antenna Tuner \$175

Contact me by e mail, preferred, or (919)872-6555 Thanks, Chuck

JAMECO ADJUSTABLE DUAL POWER SUPPLY KIT (JE215) \$25

Posted October 30th, 2018 by: N4KYW

Contact: howagood@yahoo.com

Brand new! Never built. Includes power transformer and line cord.

Adjustable positive/negative supplies: ± 5 to ± 15 VDC, 175mA to 750mA per supply. LED On indicator. 120VAC input. 48-piece kit. PC board construction. Size: 5.1

VELLEMAN SYMMETRIC 1A POWER SUPPLY KIT (K8042) \$10

Posted October 30th, 2018 by: N4KYW

Contact: howagood@yahoo.com

Brand new; never built. Just add a suitable transformer and heat sink. Ideal for e.g. op-amp applications, amplifiers, etc. Trimmers can be replaced by potentiometers to allow continuous adjustment of output voltage. LED output indicators. Positive and negative output adjustable between 1.2 and 24VDC. Sells for \$12.00 plus shipping on Amazon. My price: \$10.00
